

Application No. 10/797,425  
Response dated January 6, 2006  
to Office Action mailed October 18, 2005

**AMENDMENT TO THE ABSTRACT**

Please replace the Abstract with the following amended paragraph:

A method for fabricating a SiGe thin layer semiconductor structure containing a substrate having a dielectric layer, a variable composition  $\text{Si}_x\text{Ge}_{1-x}$  layer on dielectric layer, and a Si cap layer on the variable composition  $\text{Si}_x\text{Ge}_{1-x}$  layer. The variable composition  $\text{Si}_x\text{Ge}_{1-x}$  layer can contain a  $\text{Si}_x\text{Ge}_{1-x}$  layer with be deposited to have a graded Ge content or can be deposited as a plurality of  $\text{Si}_x\text{Ge}_{1-x}$  ~~sub-layers~~ sublayers each with different Ge content. In one embodiment of the invention, ~~the SiGe thin layer semiconductor structure contains a semiconductor substrate having a dielectric layer,~~ a Si-containing seed layer is formed on the dielectric layer, and the variable composition  $\text{Si}_x\text{Ge}_{1-x}$  layer is deposited on the seed layer, ~~and a Si cap layer on the variable composition  $\text{Si}_x\text{Ge}_{1-x}$  layer. A method and processing tool for fabricating the SiGe thin layer semiconductor structure are also provided.~~